

by yet another form of *albolabris*. It is depressed with a very flat broad base. This form is found throughout most of Kentucky.

*Polygyra albolabris alleni* Wetherby occurs chiefly west of the Mississippi where the range of *albolabris* practically ceases. Mr. C. N. Wettengel has found specimens of this at Hamilton, Illinois. This is one of the few known instances of its occurrence in that area. The possible explanation of this may be due to a change in the river bed. *P. a. alleni* is a readily distinguishable form.

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#### MOLLUSKS AND BARNACLES FROM MALPELO AND COCOS ISLANDS

LEO GEORGE HERTLEIN

Malpelo Island is a rugged, barren mass of rock about a mile long, in the Pacific Ocean southwest of Panama City and about 250 miles west of the mouth of the San Juan River in Colombia. It lies in latitude 4° 03' N., longitude 81° 36' W., and appears to be composed wholly of volcanic rock. It was noticed by Colnett in July, 1793, and was probably sighted by other early navigators. Politically, Malpelo belongs to Colombia. Slevin<sup>1</sup> included a photograph of it in a paper published in 1928.

In December, 1931, Mr. C. B. Perkins, herpetologist, of Denver, Colorado, landed on the island and spent about an hour, collecting for the San Diego Zoological Society. This was accomplished during an expedition to the Galapagos Islands on Captain G. Allan Hancock's yacht *Velero III*.

Mr. Perkins collected on the island, a number of lizards, belonging to the species *Celestus hancocki* Slevin. He also secured two species of marine gastropods and one species of barnacle. These he presented to the writer and they are now in the collections of the California Academy of Sciences. The

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<sup>1</sup> Slevin, J. R., Description of a new species of lizard from Malpelo Island. Proc. Calif. Acad. Sci., Ser. 4, vol. 16, No. 21, pp. 681-684, plates 25 and 26, February 28, 1928.

species are: *Acanthina brevidentata* Wood, *Thais patula* Linnaeus, *Tetracrita squamosa milleporosa* Pilsbry. These species also occur on the coast of Panama.

Cocos Island lies in latitude  $5^{\circ} 32' 57''$  N., and longitude  $86^{\circ} 59' 17''$  W. It was known to Wafer, Dampier and other early navigators. Politically it belongs to Costa Rica. It is at least for the most part, composed of volcanic agglomerate and other volcanic rock and is about 13 miles in circumference. The island was visited in February, 1932, on the return voyage of the *Velero III* from the Galapagos Islands. Here the writer collected marine mollusks at Wafer Bay and at Chatham Bay. Dr. G. D. Hanna kindly assisted in the determination of certain of the species.

Dall<sup>2</sup> has already mentioned the occurrence on the island of *Siphonaria gigas* Sowerby, *Melampus panamensis* C. B. Adams, *Octopus pusillus* Gould, *Octopus januarii* Hoyle, *Symplectoteuthis oualaniensis* Lesson and *Placiphorella blainvillei* Broderip.

The present faunal list is incomplete but it indicates that, with one exception, the marine mollusks from Cocos Island are similar to those from the mainland of Central America. *Cypraea moneta* Linnaeus is apparently not recorded from the coast of the mainland, but it occurs at the Galapagos Islands as well as in the South Seas.

Schmidt<sup>3</sup> has given a discussion of the zoogeography of Cocos Island and Slevin<sup>4</sup> included an excellent and interesting description in his report.

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<sup>2</sup> Dall, W. H., Proc. Acad. Nat. Sci. Philadelphia, vol. 48, Sept., 1896, pp. 452-453; Proc. Acad. Nat. Sci. Philadelphia, vol. 52, 1900, p. 97; Proc. U. S. Nat. Mus., vol. 37, 1909, pp. 194, 195, 205, 246.

<sup>3</sup> Schmidt, K. P., (Essay on the Zoogeography of the Pacific Islands). In Shurcliff, S. N., Jungle Islands, Putnam Press, New York, 1930, ap. pp. 278-280.

<sup>4</sup> Slevin, J. R., Log of the Schooner "Academy" on a Voyage of Scientific Research to the Galapagos Islands, 1905-1906, Occasional Papers Calif. Acad. Sci., No. 17, 1931, pp. 28-32, plate 2.

The following species were collected at Chatham Bay:

<i>Cerithium adustum</i> Kiener <sup>5</sup>	<i>Latirus tuberculatus</i> Broderip
<i>Conus dalli</i> Stearns	<i>Nerita bernhardi</i> Reclus
<i>Cymatium vestitum</i> Hinds	<i>Thais crassa</i> Blainville
<i>Fissurella virescens</i> Sowerby	

The following species were secured at Wafer Bay:

<i>Acmaea (Collisella)</i>	<i>Ostrea callichroa</i> Hanley
<i>aeruginosa</i> Middendorff	<i>Ostrea palmula</i> Carpenter
<i>Acanthina brevidentata</i> Wood	<i>Pedalion chemnitzianum</i>
<i>Cantharus gemmatus</i> Reeve	d'Orbigny
<i>Conus tiaratus</i> Broderip	<i>Planaxis planicostatum</i>
<i>Cypraea moneta</i> Linnaeus	Sowerby
<i>Fissurella virescens</i> Sowerby	<i>Siphonaria gigas</i> Sowerby
<i>Harpa crenata</i> Swainson	<i>Siphonaria gigas</i> var.
<i>Hipponix</i> cf. <i>grayanus</i> Menke	<i>characteristica</i> Reeve
<i>Littorina aspersa</i> Philippi	<i>Thais crassa</i> Blainville
<i>Littorina conspersa</i> Philippi	<i>Thais biserialis</i> Blainville
<i>Nerita bernhardi</i> Reclus	<i>Thais columellaris</i> Lamarck
<i>Nerita scabricosta</i> var.	<i>Thais patula</i> Linnaeus
<i>ornata</i> Sowerby	<i>Tetracrita squamosa</i>
<i>Neritina pilsbryi</i> Tryon <sup>6</sup>	<i>milleporosa</i> Pilsbry

## LIMPETS BORED BY NATICA?

BY WM. B. MARSHALL

In THE NAUTILUS for July in a note on William Beebe's "Snail Folk" (Nature Magazine for April), which shows the Bermudian *Natica canrena* on a crag eating a limpet, Pilsbry says, "I have never seen a bored limpet or a *Natica* climb the rocks for its prey."

<sup>5</sup> Mr. A. M. Strong kindly pointed out to the writer, that the figures, 2 and 3, on Kiener's plate 13, are apparently reversed. The form recorded here from Cocos Island, is the smooth one described by Kiener as *adustum* but indicated as *maculosum* on the plate.

<sup>6</sup> The specimens referred to this species in the present collection might be referred to *N. latissima* Sowerby, but since they have somewhat less developed elongations on the aperture and a light purplish colored shell they are referred to Tryon's species. The specimens were collected in the creek at Wafer Bay, about 50 meters from the beach.